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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/936,277	09/10/2001	Leo Keller	FRR-12655	3939

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EXAMINER

PRIZIO JR, PETER

ART UNIT

PAPER NUMBER

2674

DATE MAILED: 11/06/2003

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/936,277

Applicant(s)

KELLER, LEO

Examiner

Peter Prizio

Art Unit

2674

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-7 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 10 September 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s) ____.
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____ 6) ☐ Other: ____.

DETAILED ACTION

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Response to Amendment

2. This action is in response to preliminary amendment "A" filed on 10 September 2001.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claim 6 is rejected under 35 U.S.C. 102(b) as being anticipated by US Patent 5,315,099 to Gunz et al (Gunz). Gunz (Fig. 1 & 3) teaches an electro-optical filtering device containing an optical filtering element (5) with a liquid crystal (15), electronic means (Fig. 3) for driving at least one active filter element (5), a light sensor (4) operating in conjunction with a solar cell (3), wherein the liquid crystal is a TN-LCD (Col. 3, Line 25)

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and

the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1-3 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gunz in view of US Patent 3,961,840 to Morokawa et al. (Morokowa).

The disclosure of Gunz (Fig. 1) teaches an optical filter element (5). Gunz (Col. 3, Lines 41-44) also teaches driving an optical filter element with a frequency of drive pulses to be between 0.01 and 1 Hz.

Gunz differs from claims 1-3 in that the optical filter element does not contain a switch to short-circuit the optical filter element between two successive drive pulses. However, Morokowa teaches driving a liquid crystal with anti-polar drive pulses (Fig. 4a – d) including a switch (Fig. 3e, 12) to short-circuit the liquid crystal (Col. 4, Lines 57 – 60). Morokawa further teaches that short-circuit times are shorter than time durations (Fig. 4a & 4b). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to drive the optical filter element between 0.01 and 1 Hz as taught by Gunz with anti-polar drive pulses and the short-circuit switch where the short circuit times are shorter than the time durations as taught by Morokawa to reduce power consumption.

7. Gunz, as applied to claim 6 above, differs from claim 7 in that Gunz does not teach a switch to short-circuit an active optical filter element, however Morokawa (Fig. 3e) teaches a switch (12) to short-circuit an active optical filter element. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the optical filter element as taught by Gunz with the switch as taught by Morokawa to reduce power consumption.

8. Claims 4 and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gunz in view of Morokawa as applied to claim 1 above, and further in view of applicants admitted prior art.

Gunz (Col. 3, Lines 54-56) teaches an increased voltage results in a reduction in the scattered light. Gunz does not specifically teach the scattered light term of claim 4, however, using the known equations 1 & 2 of the instant application. Gunz also does not explicitly disclose an operating voltage several times above the Freedericksz-threshold, however one of ordinary skill in the art would realize a voltage high enough to obtain a high extinction (Line 35) would be several times above the Freedericksz-threshold. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the combination of teachings of Gunz and Morokawa to where the scattered light term is equal to or less than the transmission term as taught by applicants admitted prior art to prevent transmission of light in excess of the safety standards.

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Peter Prizio whose telephone number is (703) 305-5712. The examiner can normally be reached on Monday-Friday (7:30-5:00), alternating Fridays off.

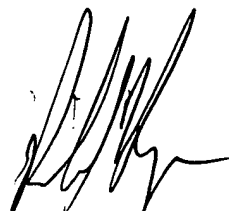
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Hjerpe can be reached on (703) 305-4709. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Art Unit: 2674

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.

Peter Prizio
Examiner
Art Unit 2674

PP



RICHARD A. LUNDE
SUPERVISOR OF PATENT EXAMINERS
TECHNICAL STAFF